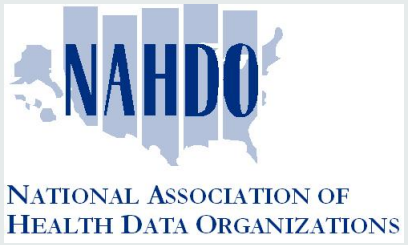
All-Payer Claims Databases

Maine LD 1818 Committee

Patrick Miller, MPH

June 14, 2012



Topics

- Background
- National Activities and Standards
- State Experiences and Lessons Learned
- Usage Examples
- Contact Information

MHDO Acknowledgements

- "Going first" in 2003
- Leader in Medicare mapping & integration
- Part of the APCD Council Technical Advisory Panel for standards development
- Assistance to other states
- NAHDO Board leadership
- Conference participation
- Current CMS data acquisition effort

Background

Our Work

- Standards Development
- Technical Assistance to States
- Web Resources
- Publications and Issue Briefs
- Annual Conference

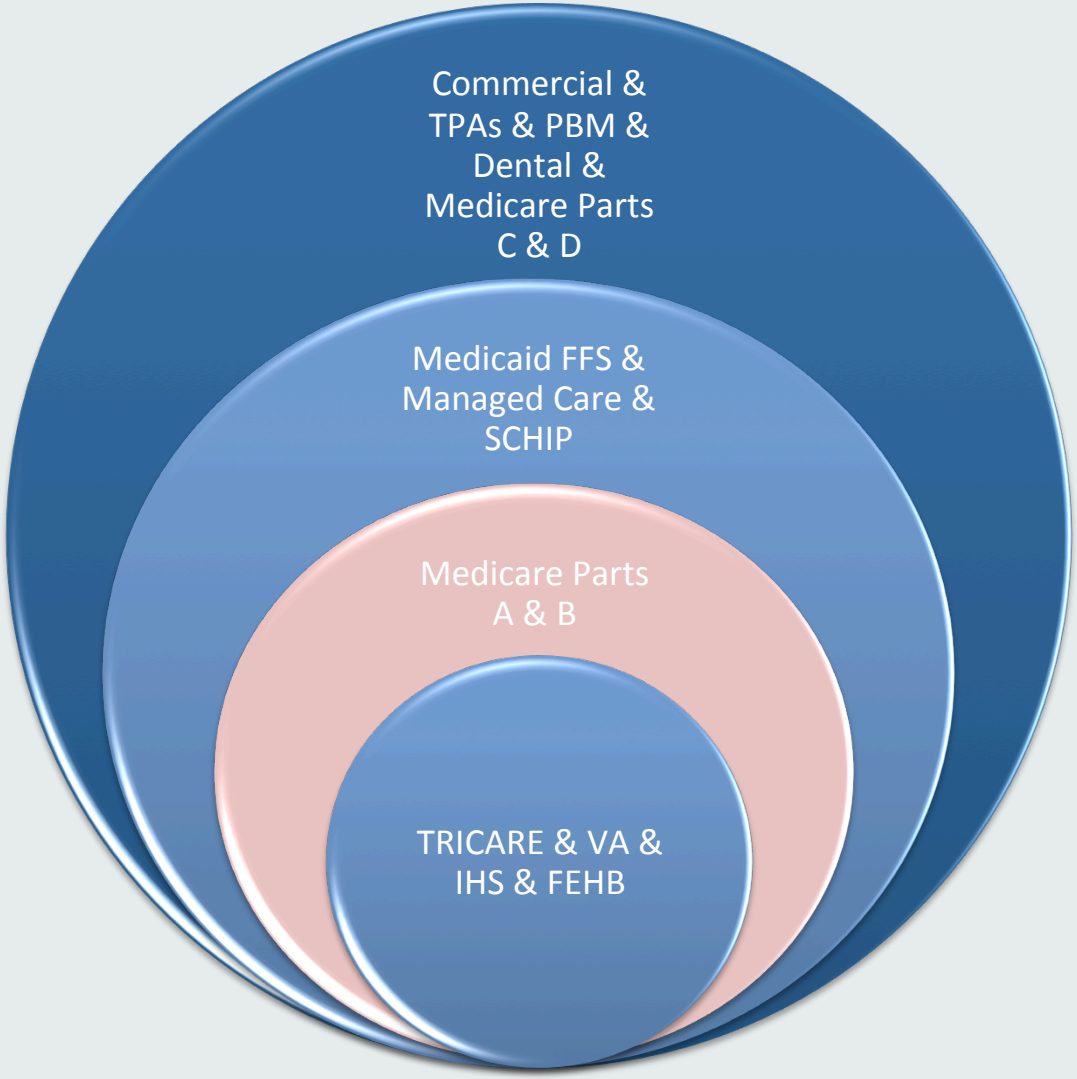
www.apcdcouncil.org

Definition of APCDs

- Databases, created by state mandate, that typically include data derived from *medical, pharmacy, and dental claims with eligibility and provider* files from private and public payers:
  - Insurance carriers (medical, dental, TPAs, PBMs)
  - Public payers (Medicaid, Medicare)

6

Typical APCD Data Sets



Typically Included Information

- Encrypted social security**
- Patient demographics(date of birth, gender, residence, relationship to subscriber)
- Type of product (HMO, POS, Indemnity, etc.)
- Type of contract (single person, family, etc.)
- Diagnosis codes (including E-codes)
- Procedure codes (ICD, CPT, HCPC, CDT)
- NDC code / generic indicator / other Rx
- Revenue codes
- Service dates
- Service provider (name, tax id, payer id, specialty code, city, state, zip code)
- Prescribing physician
- Plan charges & payments
- Member liabilities (co-pay, coinsurance, deductible)
- Date paid
- Type of bill
- Facility type
- Other 835/837 fields

Typically Excluded Information

- Services provided to uninsured
- Denied claims
- Workers' compensation claims
- Referrals
- Test results from lab work, imaging, etc.
- Provider affiliations
- *Premium information*
- *Capitation fees*
- *Administrative fees*
- *Back end settlement amounts*
- *Back end P4P or PCMH payments*

Proposed Supplemental Fiscal File

Source G/L (Not Claims):

- Carrier ID
- Provider ID
- Transaction date
- Debit or credit amount
- Transaction reason code (i.e., contract settlement payment, P4P payment, quality bonus payment, primary care centered medical home payment, capitation fee, other payment)

Evolution of Data Sets for States

Administrative Data Sets

- Hospital Discharge
- Medicaid
- Medicare
- All-Payer Claims Databases

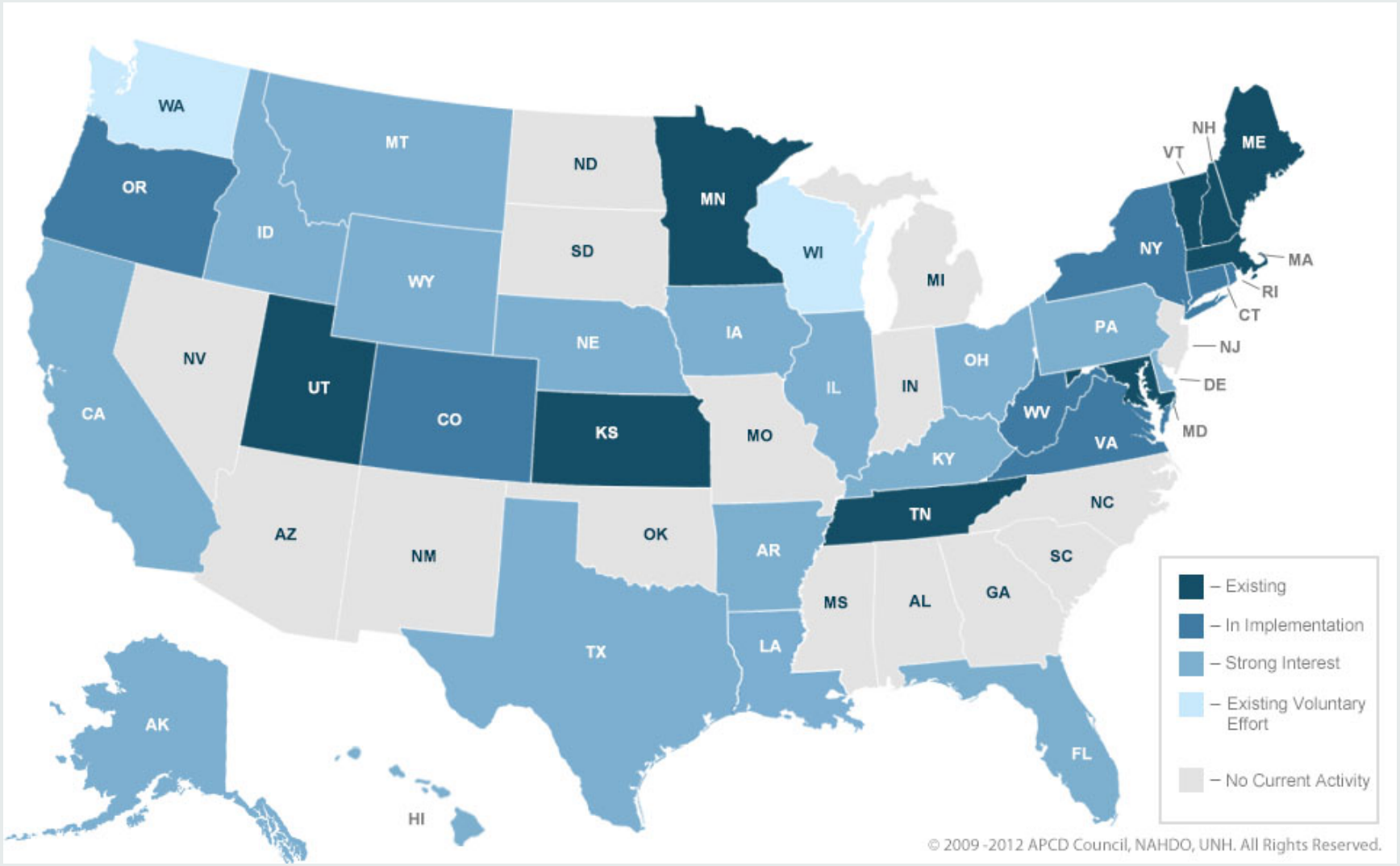
Clinical Data Sets

- Public Health Registries
- Clinical Registries
- Electronic Health Records
- Laboratory Systems
- Health Information Exchanges

Linkage?

National Activities and Standards

June 2012 State Progress Map



Areas for Standardization

1. *Data collection / submission*
   - Aligning to HIPAA Standards
   - Efficiencies in metadata, reporting, analysis, and application development
2. Data release
   - Political
   - State-driven
3. Data Transformation/ETL Processing
4. Meta Data
5. Applications and Reporting

Standards Technical Advisory Panel

- Agency for Healthcare Research and Quality (AHRQ)
- All-Payer Claims Database Council (APCD Council)
- American Medical Association (AMA)
- America's Health Insurance Plans (AHIP)
- Individual Payers (e.g., Aetna, Cigna, Harvard Pilgrim Healthcare, Humana, United Health Care)
- Centers for Disease Control and Prevention, National Center for Health Statistics (CDC NCHS)
- Centers for Medicare and Medicaid Services (CMS)
- National Association of Health Data Organizations (NAHDO)
- National Association of Insurance Commissioners (NAIC)
- National Conference of State Legislatures (NCSL)
- National Governors Association (NGA)
- Office of the Assistant for Planning and Evaluation (ASPE)
- State Health Plan Associations - various

Collection Standards

- Variation in collection standards by state
- Effort launched 4 years ago at AHIP
- NCPDP pharmacy standard – October 2011
- X12 PACDR standard for institutional, professional & dental – June 2012 vote; October 2012 publication (info@disa.org)
- X12 834 being reviewed for HIX
- AHRQ USHIK database/query tool

APCD 2.0

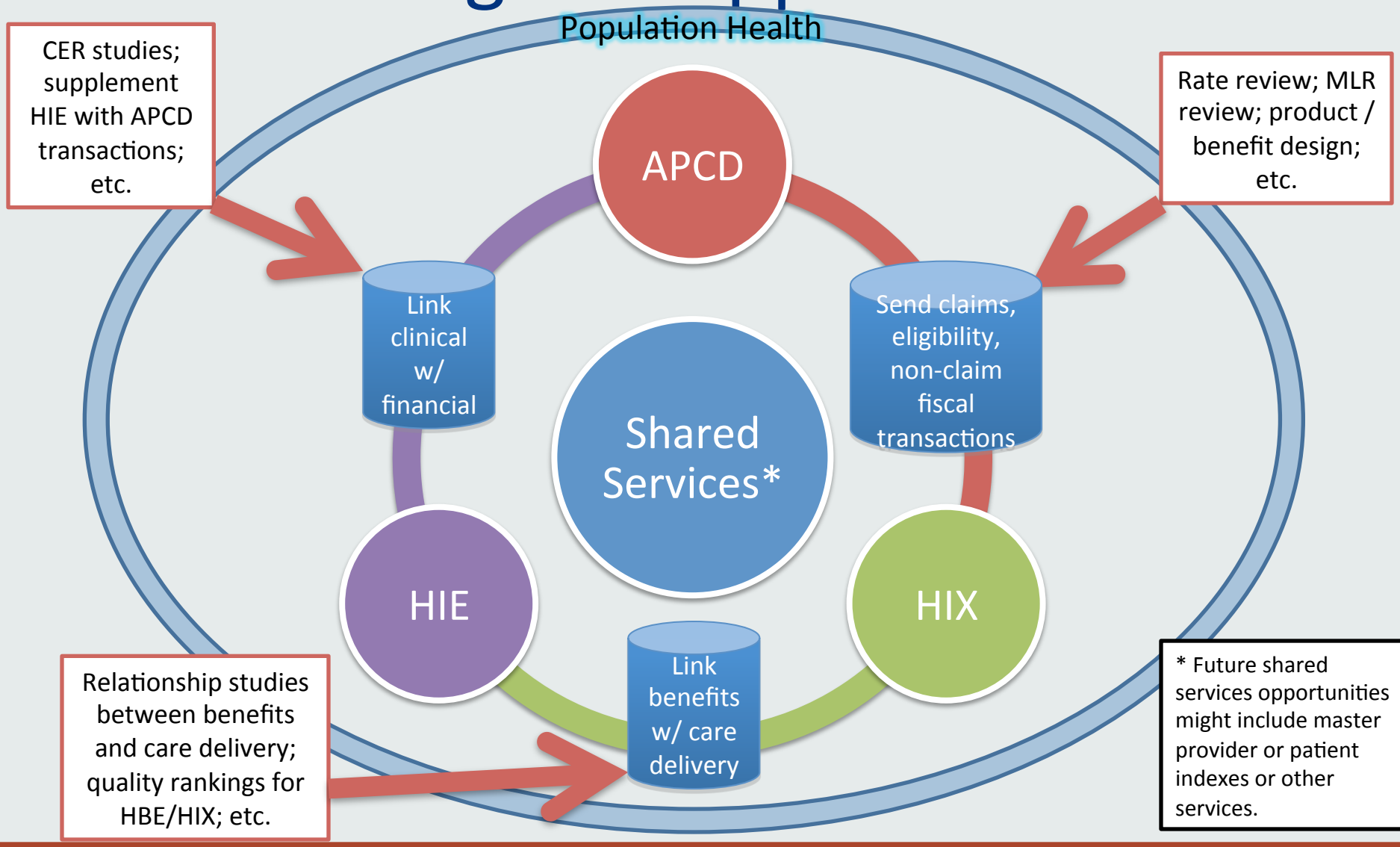
- Completeness of Data Sets
- Data Collection Standards
- Data Release Standards
- Collection of Direct Patient Identifiers for Linkage Purposes
- Collection of Premium Information
- Collection of Supplemental Financial File
- Collection of Benefits Information
- Master Provider Index

Status by State of Direct Patient Identifier Collection

State	Status
Colorado	Based upon an initial 2011 report to Governor and General Assembly, all data transmitted from the carriers, including patient identifiers will be encrypted during transmission and while stored within the APCD. Data will be decrypted briefly as received from the carriers so that a unique identifier can be attached to each patient, and then re-encrypted. All data will be released without direct patient identifiers.
Kansas	Not currently allowed for commercial data, but due to the HBE, Kansas expects that within six months there will be an effort to change this. Kansas currently collects identifiable information for state employees and Medicaid.
Maine	Allowed by law, but prohibited by law from being disclosed; not currently collected. A 2011 legislative proposal intended to allow for release did not pass, but will be evaluated under a legislative study.
Maryland	Allowed by law. Currently collecting unencrypted patient identifiers.
Massachusetts	Allowed by law. Currently collecting unencrypted patient identifiers.
Minnesota	Not currently allowed.
New Hampshire	Not currently allowed.
New York	Allowed by law. System not implemented yet.
Oregon	Currently collecting a subset of unencrypted patient identifiers.
Rhode Island	Not currently allowed.
Tennessee	Not currently allowed.
Utah	Allowed by law. Currently collecting unencrypted patient identifiers.
Vermont	Allowed by law. Currently collecting encrypted patient identifiers.
West Virginia	Allowed by law to be collected, but not disclosed.

Source: APCD Council Report, July 2011

Strategic IT Opportunities



APCD Opportunities with HIE* & HIX

- Calculating Fiscal Impact of Clinical Decision-Making and Comparative Effectiveness
- Public Health Research
- Health Services Research
- Risk Adjustment and Episodic Analyses
- Populating the HIE With APCD "Non-Clinical Events"
- TBD…

- Rate Review
- Risk Adjustment
- Medical Loss Calculations
- Product Design
- Benefit Design
- Quality Metrics Integration
- TBD…

* Or Other Clinical Repositories Such As Registries or Electronic Health Records.

APCD Challenges with HIE* & HIX

HIE

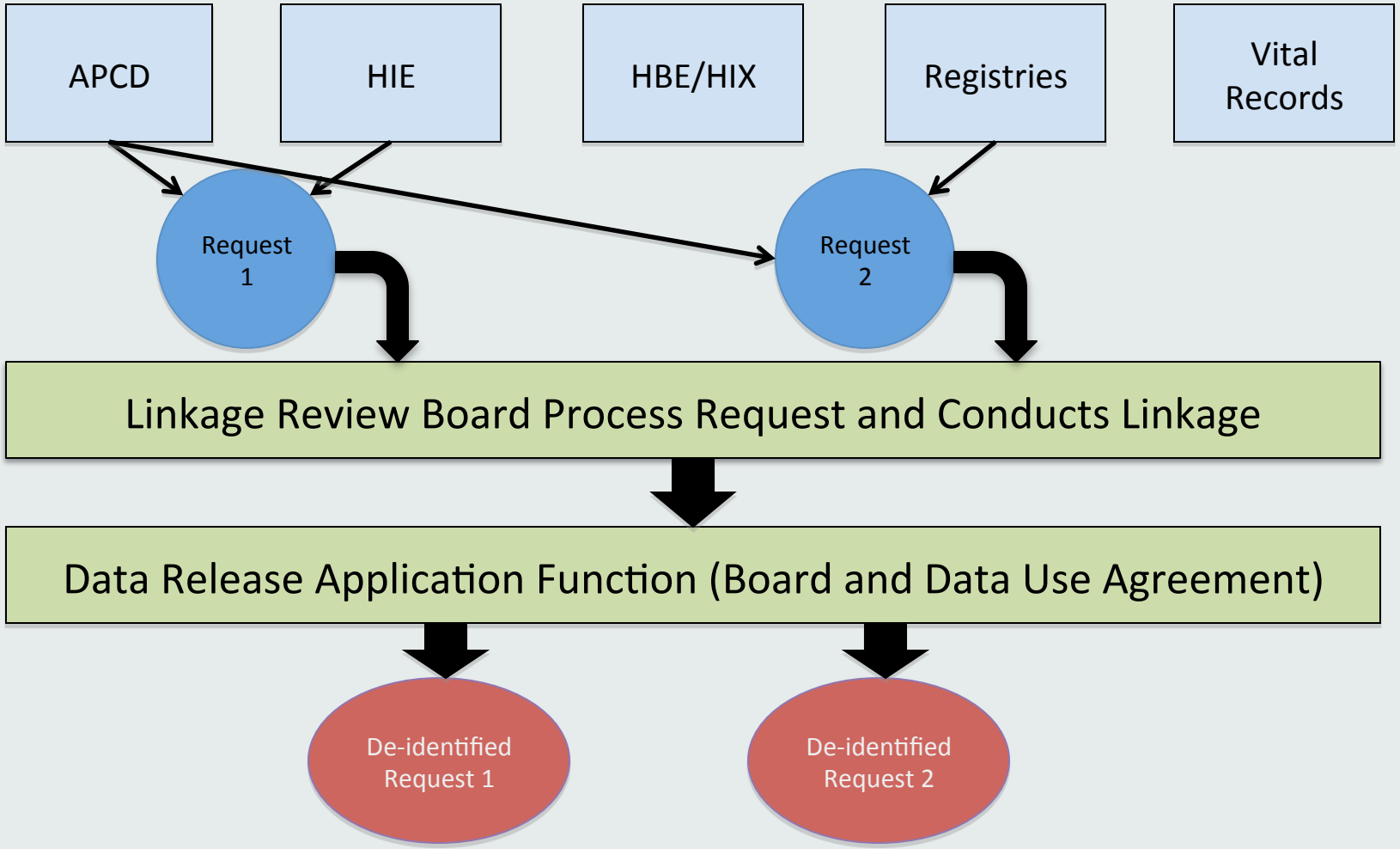
- Silos (funding and operational)
- Data Linkage
- Integrating IT Strategies and Aligning Funding Streams to Achieve High Performing Healthcare Systems
- "Relevancy" to Policy Makers for Health Reform Efforts
- Provider Identification and Hierarchy
- Governance

HIX

- Population Covered in the HIX is a Subset of the APCD Population
- Will HIX Funding Support Serving as the APCD Platform
- Additional Information Required for Rate Review and Medical Loss Calculations
- Willingness to Use for Product Design, Benefit Design, and Quality Metrics Integration

* Or Other Clinical Repositories Such As Registries or Electronic Health Records.

Proposed Governance Model for Linkage of Direct Patient Identifiers and Data Release



Master Provider Index Concept

Affiliation (i.e., PHO or other structure)

- Affiliation Name, Street Address (not billing), City, State, Zip, Phone

Owner (i.e., Goodwill Hospital)

- Owner Name, Street Address (not billing), City, State, Zip, Phone

Practice (i.e., Primary Care Associates)

- Practice Name, Street Address (not billing), City, State, Zip, Phone

Provider (i.e. Dr. Smith)

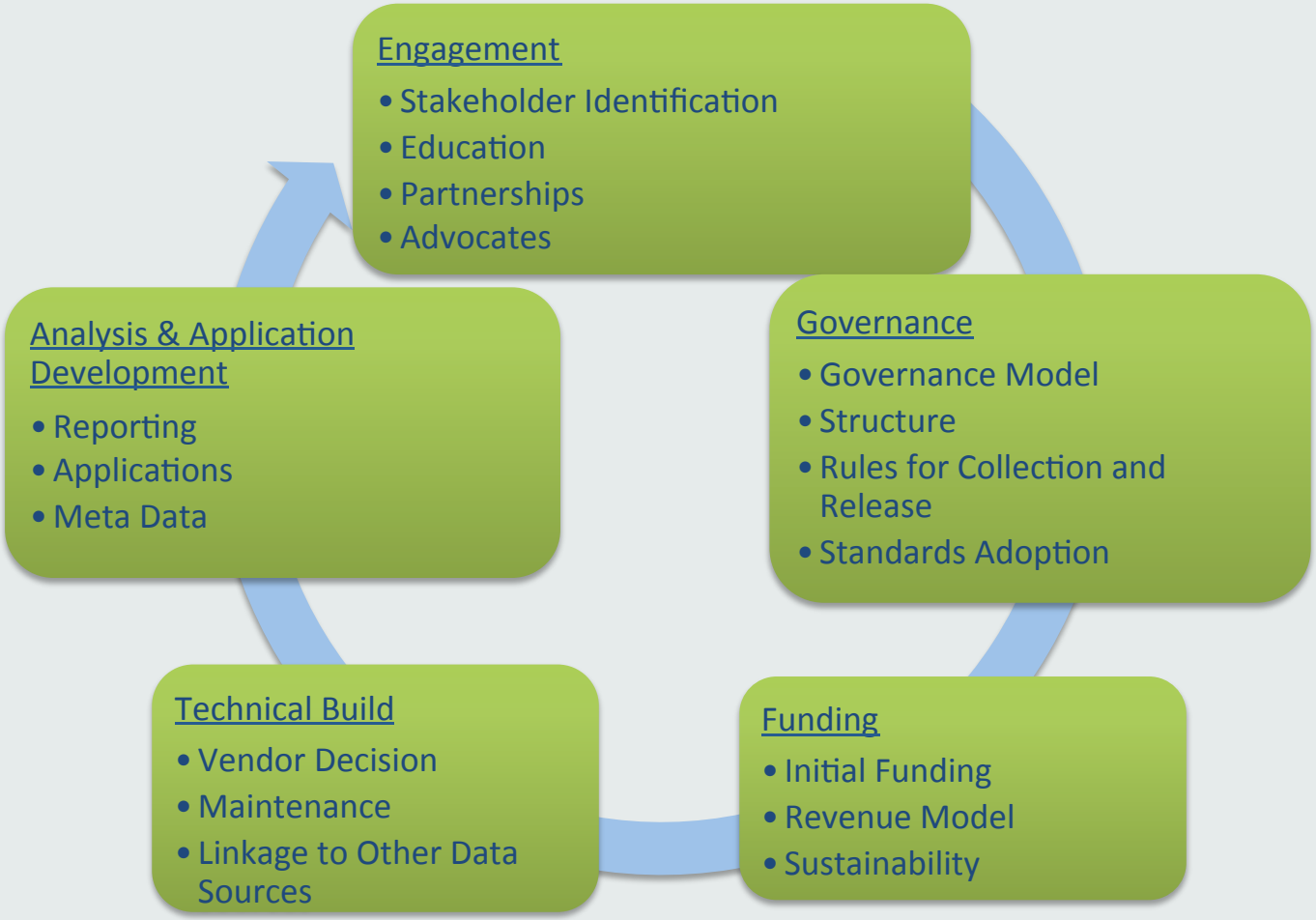
- First Name, Last Name, TIN, NPI, Practice Name, Specialty 1, Specialty 2, Street Address (not billing), City, State, Zip, Phone

Maine Considerations

- Transparent ETL process
- Remove silos of data (APCD, HIE, registries, etc.)
- Collection of unencrypted identifiers
- Define research vs. operations needs
  - Use case development
- Opportunities to work with NNE
  - NH, VT, MA
- NCPDP and X12 standards

State Experiences and Lessons Learned

All-Payer Road Map



Components of Cost

- Population Covered (size)
- Number of Carrier Feeds
  - Membership Thresholds
- Provider Database
- Data Release / Access
- Analytics, Reporting, Applications

Funding Models

- General Funds
- Assessments (payers, providers)
- Medicaid (various options)
- Private Foundations
- Data Sales (minimal)
- Fines for non-compliance (minimal source of revenue)
- Grants: federal, state, private
- Products/Services: Data aggregation/reporting for required HEDIS activities
- Products/Services: Data aggregation/reporting for P4P programs

Lessons Learned by States

- Develop Multi-Stakeholder Approach
  - Form Provider Relationships
  - Form Payer Relationships
- Be Transparent and Document
- Understand Uses and Limitations
- Seize Integration & Linkage Opportunities
- Develop Use Cases

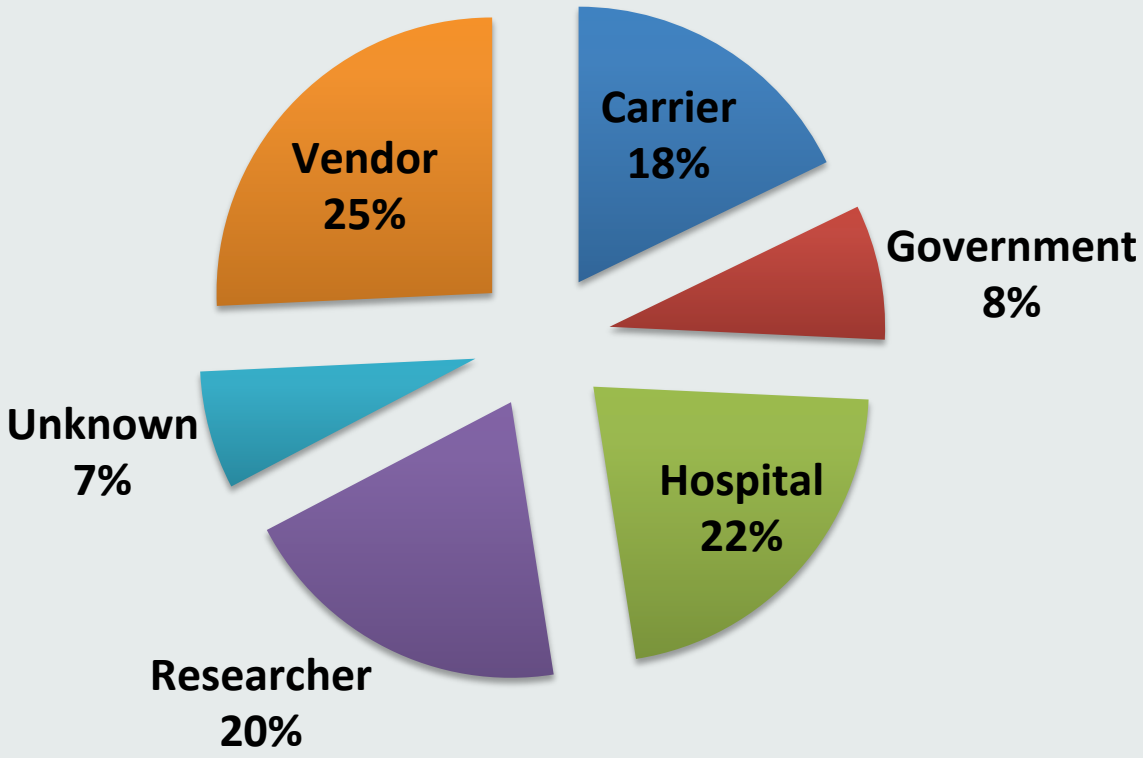
Usage Examples

Something for Everyone

- Consumers
- Employers
- Health Plans/Payers
- Providers
- Researchers (public policy, academic, etc.)
- State government (policy makers, Medicaid, public health, insurance department, etc.)
- Federal Government (MPCD, CMS, CDC, etc.)

Requests for NH Data

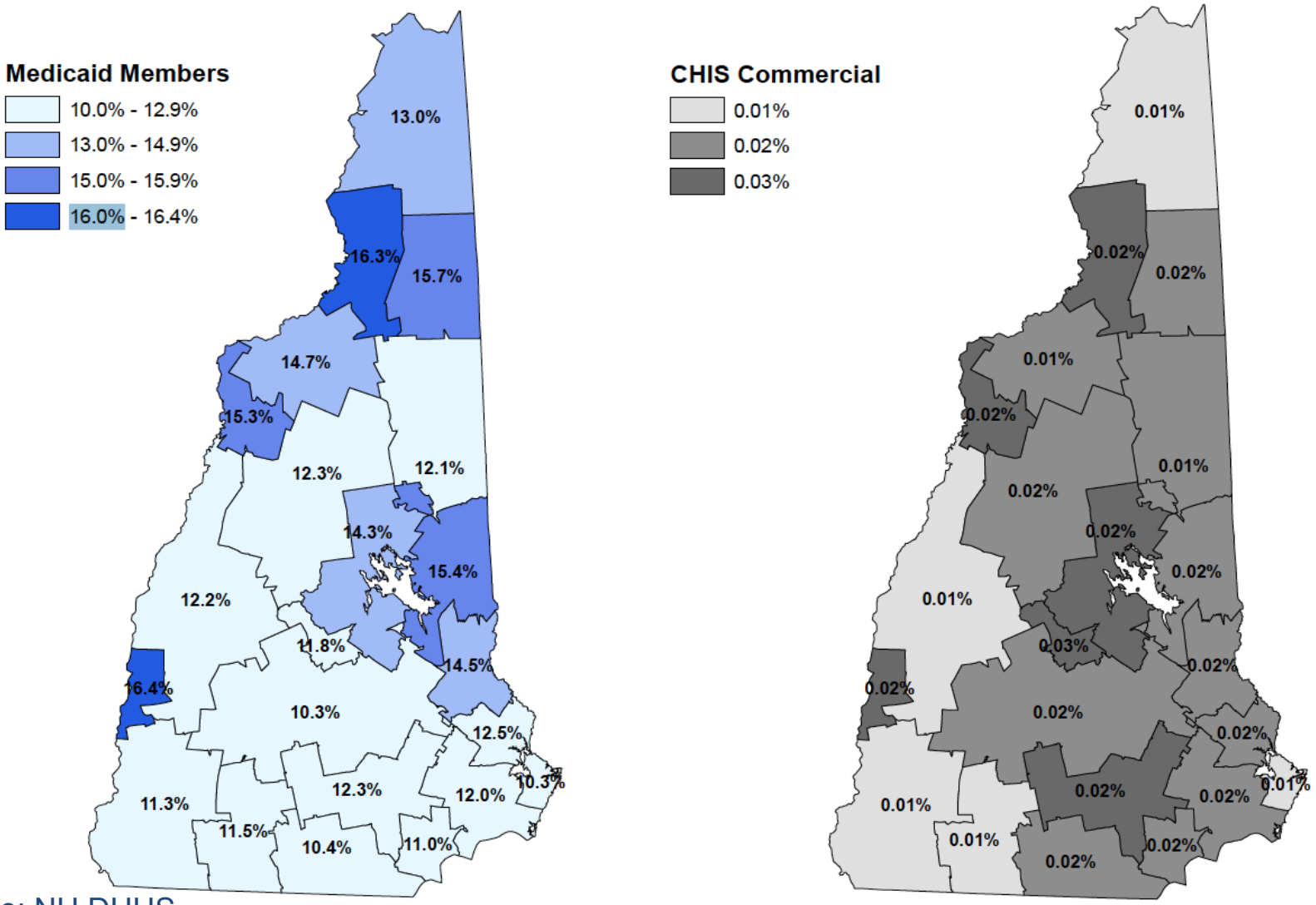
NH APCD Public Use Requests by Requestor Type (n=101 as of May 2012)



Population Health

COPD Prevalence

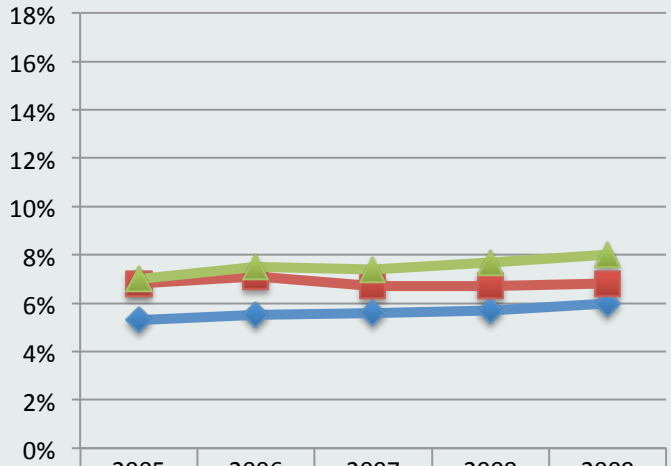
Rates Standardized for Age



Source: NH DHHS

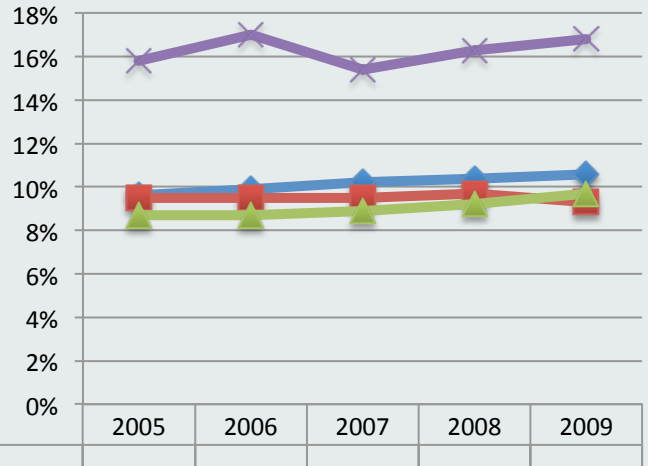
Prevalence of Asthma by Age, NH Medicaid and Commercial Members, 2005-2009

NH Commercial Asthma Prevalence 2005-2009



	2005	2006	2007	2008	2009
Total Asthma Prevalence	5.3%	5.5%	5.6%	5.7%	6.0%
Age 0-4 Prevalence	6.8%	7.1%	6.7%	6.7%	6.8%
Age 5-9 Prevalence	7.0%	7.5%	7.4%	7.7%	8.0%

NH Medicaid Asthma Prevalence 2005-2009



	2005	2006	2007	2008	2009
Total Asthma Prevalence	9.6%	9.9%	10.2%	10.4%	10.6%
Age 0-4 Prevalence	9.5%	9.5%	9.5%	9.7%	9.3%
Age 5-9 Prevalence	8.7%	8.7%	8.9%	9.2%	9.7%
Age 55-59 Prevalence	15.8%	17.0%	15.4%	16.3%	16.8%

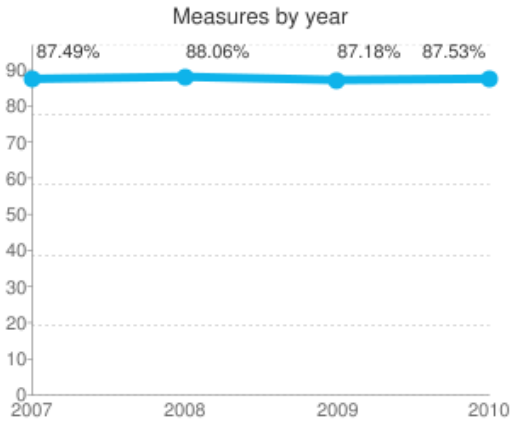
SOURCE: NH DHHS; www.nhchis.org

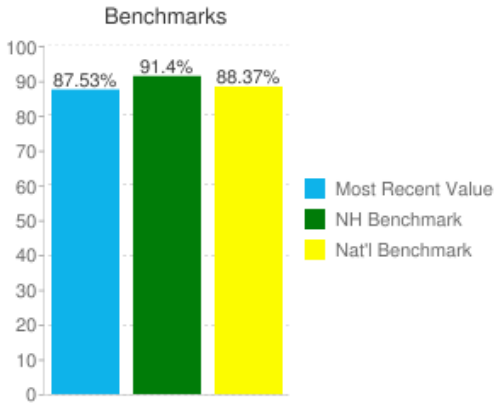
- DHHS Home
- DHHS Medicaid Home
- Medicaid Report Card Home
- Report Topics
  - Access to Quality Hospital Services
  - Access to Quality Primary Care Services
  - Dental Access
  - Diabetes
  - Health Risk Behaviors
  - Heart Disease and Stroke
  - Maternal, Infant and Child Health
  - Mental Health and Substance Use Disorders
  - Respiratory Diseases

Medicaid Report Card

Results for: Use of Appropriate Medications for People with Asthma (ASM)

Measures by Year





Data

Year	Measure Numerator	Measure Denominator	Measure Value	NH Benchmark	National Benchmark
2010	1,565	1,788	87.53%	91.4%	88.37%
2009	1,380	1,583	87.18%	89.9%	88.57%
2008	1,542	1,751	88.06%	90.7%	86.9%

Vermont Utilization Measures -2008 Commercial

Burlington Hospital Service Area: Commercially Insured Under Age 65

Burlington Hospital Service Area Data						Vermont			New Hampshire	Maine	Tri-State Combined
Utilization Measure	Average Members	Number of Services or Procedures	Adj. Rate PER 1,000	95% LCL	95% UCL	Highest VT HSA	Lowest VT HSA	Adj. Rate PER 1,000	Adj. Rate PER 1,000	Adj. Rate PER 1,000	Adj. Rate per 1,000
Computerized Tomography (CT)	91,200	5,885	65.6	63.9	67.3	100.4	63.3	75.66	92.02	83.82	84.8
Magnetic Resonance Imaging (MRI)	91,200	5,180	57.8	56.2	59.4	73.8	53.3	62.39	81.06	64.40	69.5
Inpatient Hospitalizations	91,200	4,025	44.3	42.9	45.7	63.9	41.2	48.07	53.69	51.35	51.3
Inpatient Readmissions Within 30 Days	91,200	302	3.38	3.01	3.79	9.13	3.27	4.73	5.67	6.15	5.70
Inpatient Hospitalizations for Ambulatory Care Sensitive Conditions	91,200	175	1.96	1.68	2.27	5.98	1.96	2.94	4.38	3.97	3.90
Outpatient Emergency Department Visits	91,200	11,478	125.1	122.8	127.4	267.2	125.1	183.25	231.67	223.99	218.2
Potentially Avoidable Outpatient Emergency Department Visits	91,200	1,478	16.1	15.2	16.9	50.8	16.1	30.74	43.35	44.91	41.5
Non-Hospital Outpatient Visits	91,200	432,716	4,799	4,784	4,813	4887	3872	4561.97	5053.43	4512	4705
Office-Clinic Visits	91,200	305,860	3,395	3,383	3,407	3683	2974	3338.45	3757.71	3254.27	3442
Chiropractic or Osteopathic Manipulation	91,200	67,250	745	739	750	745	148	622.91	707.87	875.90	767
Hysterectomy, Females Age 20-64	34,741	141	4.09	3.44	4.83	11.37	3.38	5.79	7.19	6.94	6.78
Back Surgery, Age 20-64	67,850	201	3.01	2.61	3.46	4.32	1.81	3.01	3.81	3.77	3.62

Medical Expenditures (excluding pharmacy claims for prescription drugs)

Area	Member Months	Payments (millions)	Adjusted PMPM	Hospital/Facility Proportion	Physician/Other Proportion
Burlington HSA	1,094,378	$257.7	$240	50.7%	49.3%
Highest VT HSA	1,094,378	$257.7	$301	69.8%	49.3%
Lowest VT HSA	71,817	$20.1	$240	50.7%	30.2%
Vermont	3,262,837	$869.2	$261	59.5%	40.5%
New Hampshire	5,409,270	$1,684.2	$317	60.0%	40.0%
Maine	7,196,791	$2,057.1	$284	60.3%	39.7%
Tri-State Combined	15,868,898	$4,610.5	$291	60.1%	39.9%

http://www.bishca.state.vt.us/sites/default/files/Act49-Tri-State-Data-Compendium.pdf

Source: State of Vermont

Consumers

Source: http://hcqcc.hcf.state.ma.us/Default.aspx

NH HEALTH COST

Source: http://www.nhhealthcost.org

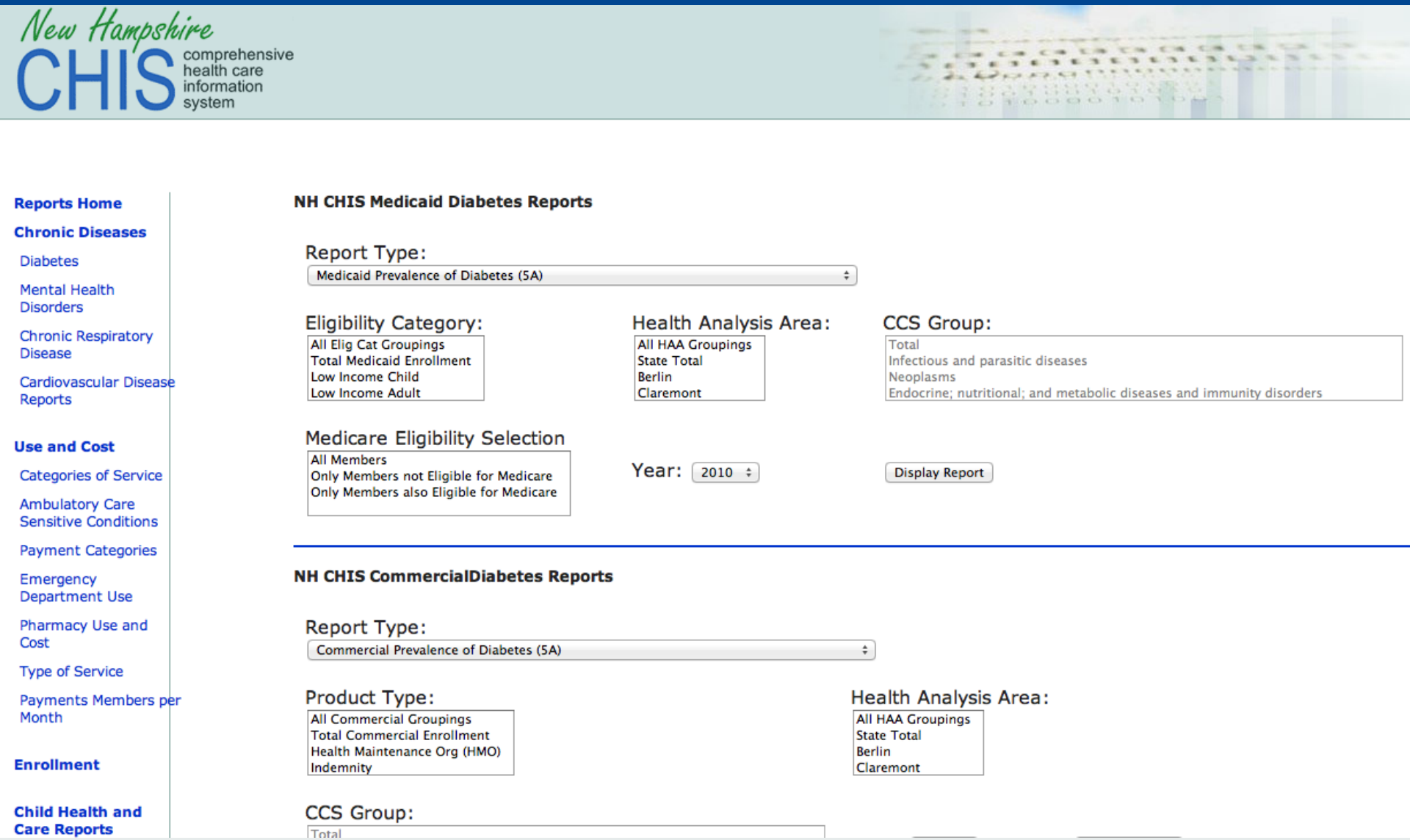
Detailed estimates for Arthroscopic Knee Surgery (outpatient)

Procedure: Arthroscopic Knee Surgery (outpatient)
Insurance Plan: Anthem - NH, Health Maintenance Organization (HMO)
Within: 20 miles of 03301
Deductible and Coinsurance Amount: $200.00 / 10%

Lead Provider Name	Estimate of What you Will Pay	Estimate of What Insurance Will Pay	Estimate of Combined Payments
CONCORD AMBULATORY SURGERY CENTER	$507	$2769	$3276
CAPITAL ORTHOPAEDIC SURGERY CENTER	$553	$3177	$3730
DARTMOUTH HITCHCOCK SOUTH	$601	$3609	$4210
LAKES REGION GENERAL HOSPITAL	$664	$4178	$4842
SPEARE MEMORIAL HOSPITAL	$673	$4264	$4937
FRANKLIN REGIONAL HOSPITAL	$681	$4334	$5015
CATHOLIC MEDICAL CENTER	$759	$5036	$5795

State Regulatory Agencies

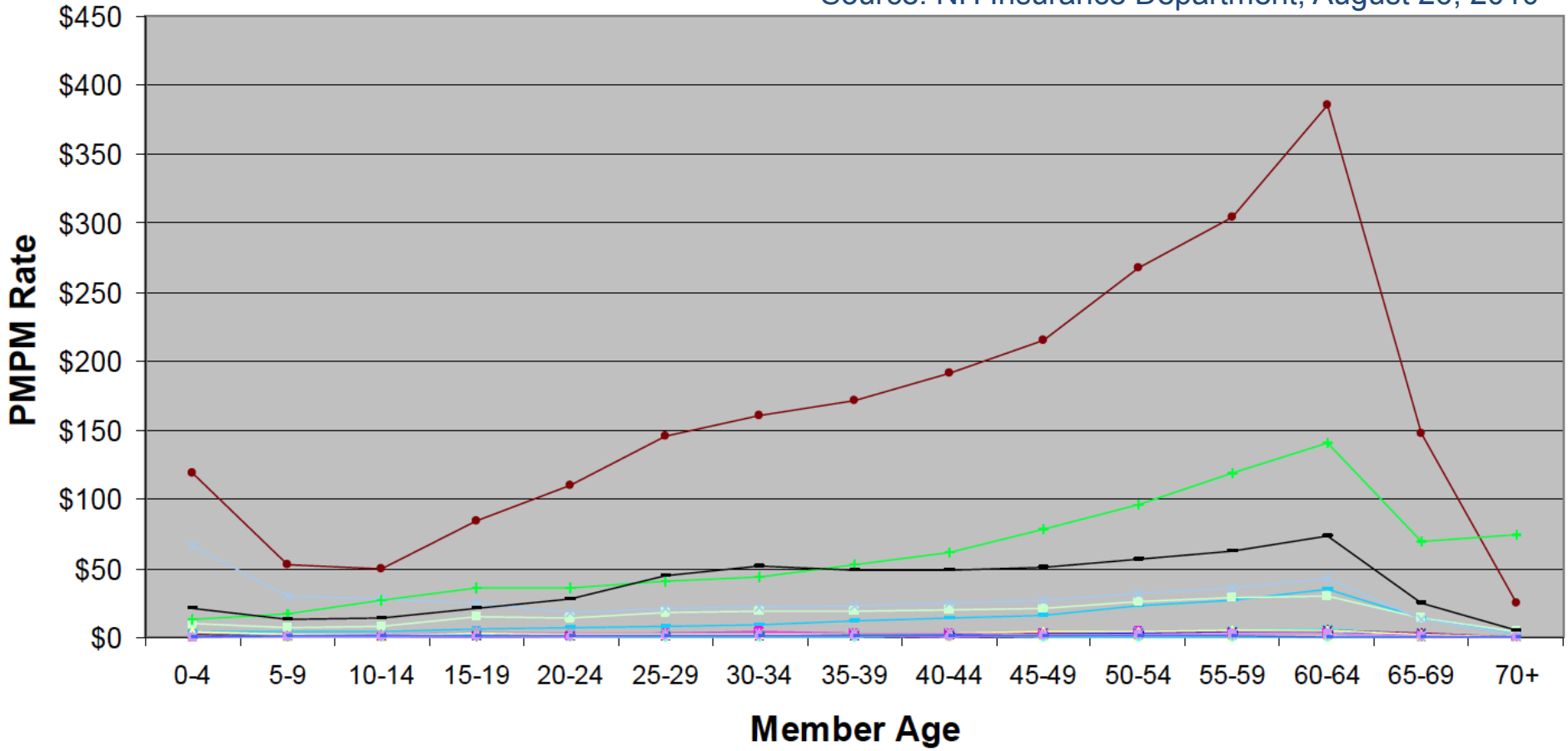
New Hampshire CHIS comprehensive health care information system



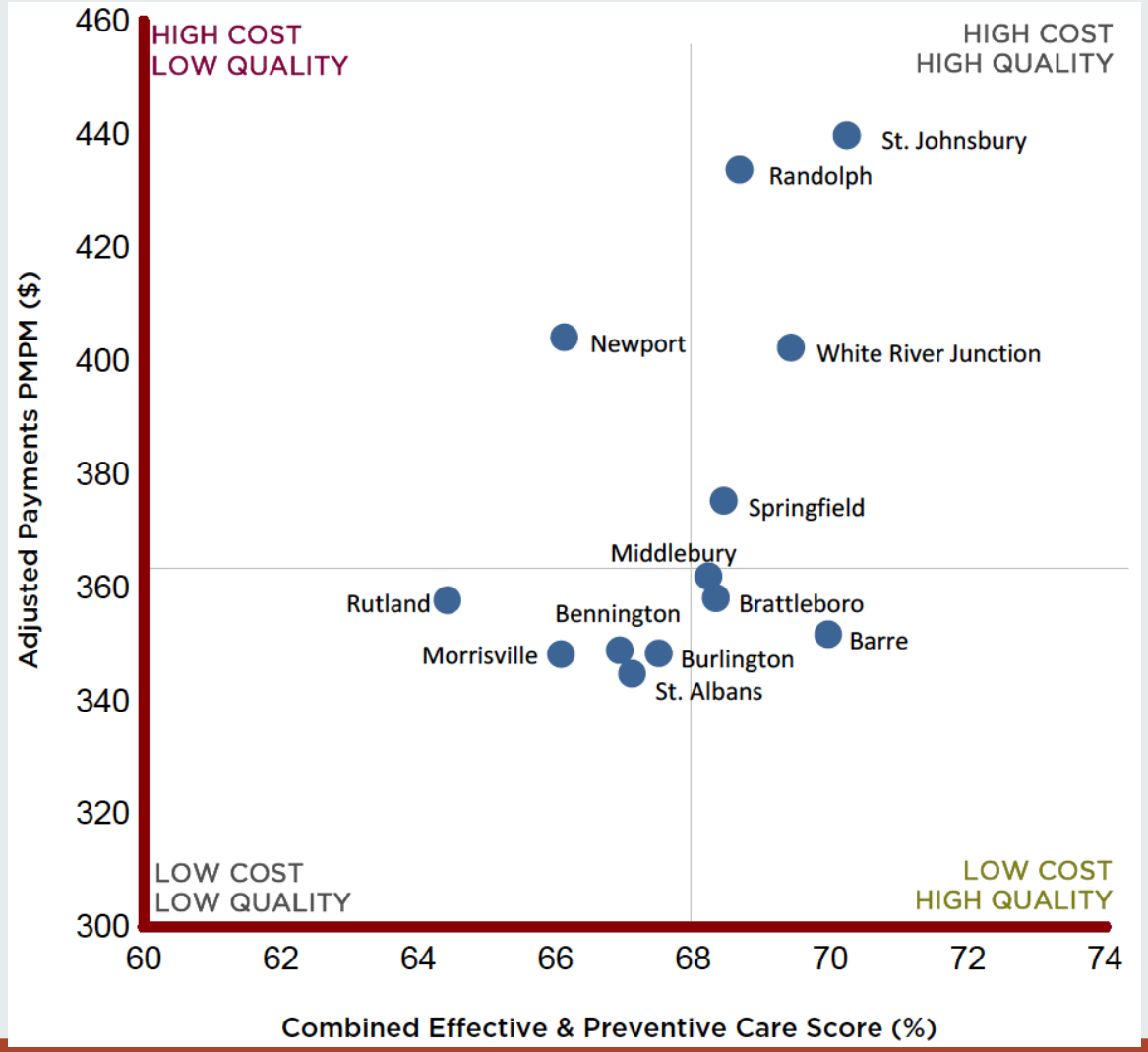
SOURCE: http://www.nhchis.org

2009 PMPM Rates by Age Group and Service Type

Source: NH Insurance Department, August 26, 2010



Vermont Comparative Costs and Quality by Region

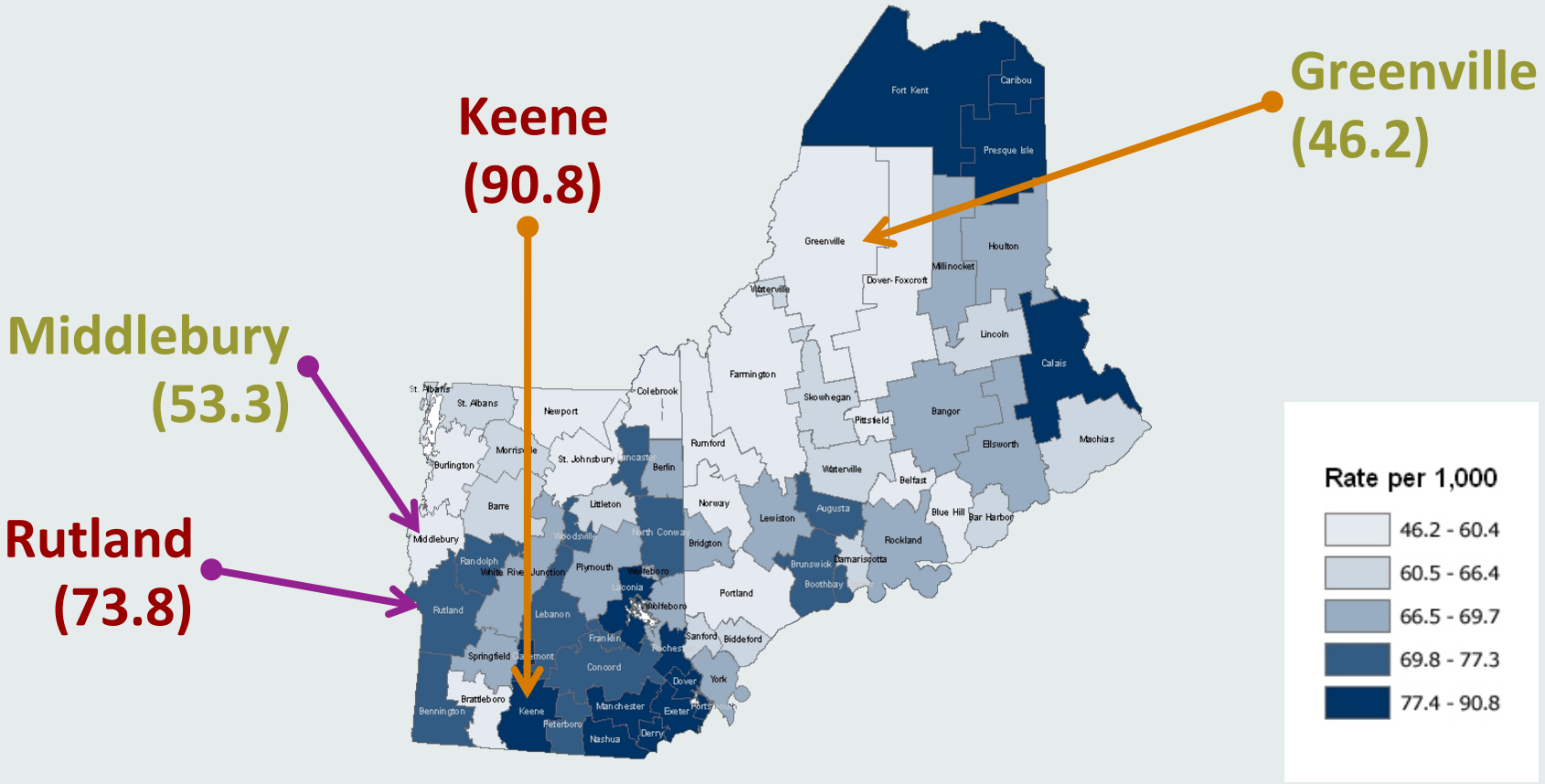


The scattergraph shows the relationship between the rate of payments and the rate of effective and preventive care. The graph's vertical axis displays the rate of payment per member per month (PMPM) adjusted for differences in age, gender, and health status of the population. The graph's horizontal axis displays the combined effective and preventive care score. The crosshair lines display the statewide average for each axis; subpopulations are classified into quadrants based on comparison to the statewide average.

SOURCE: VT BISHCA

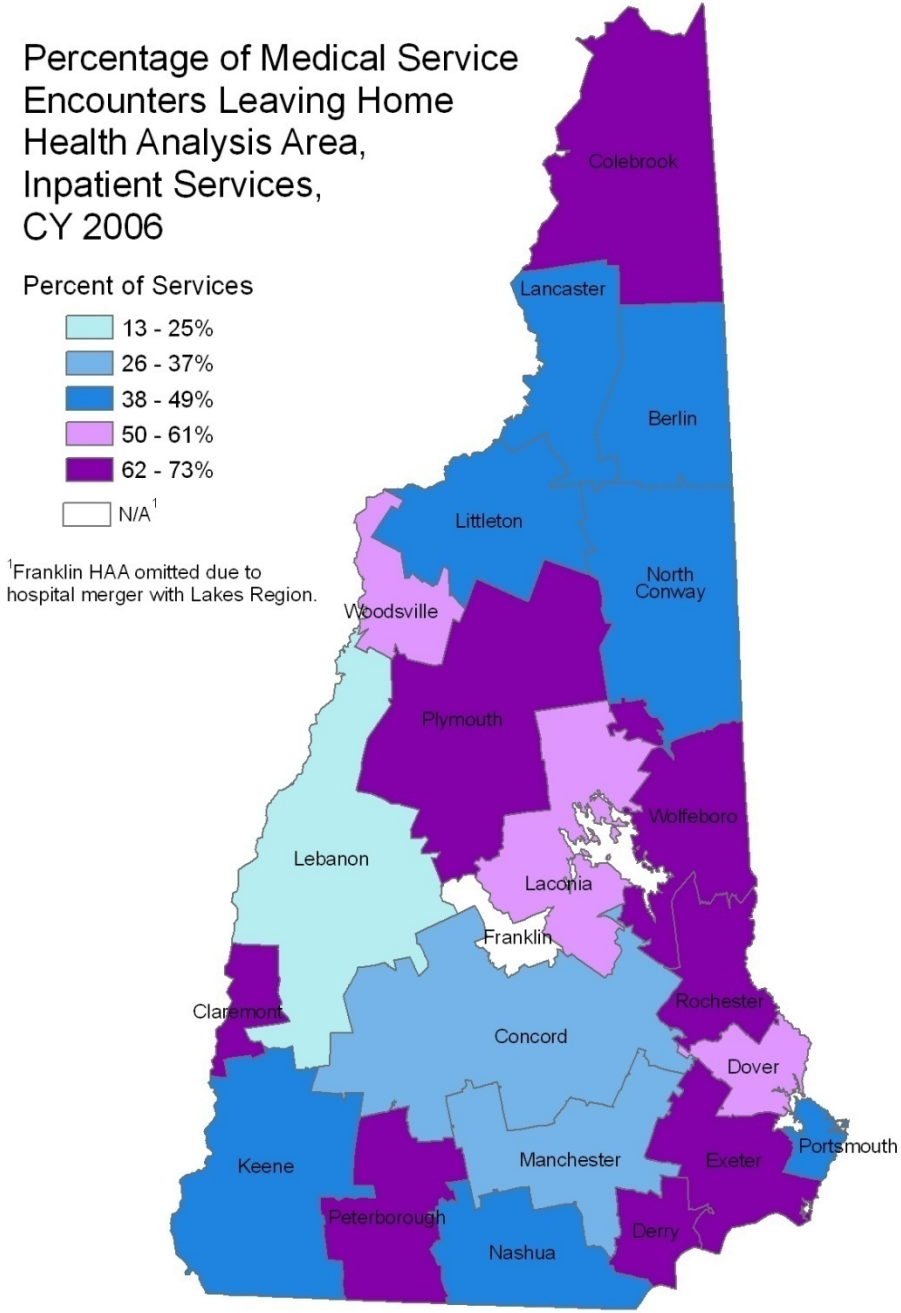
Tri-State Variation in Health Services

Advanced Imaging – MRIs



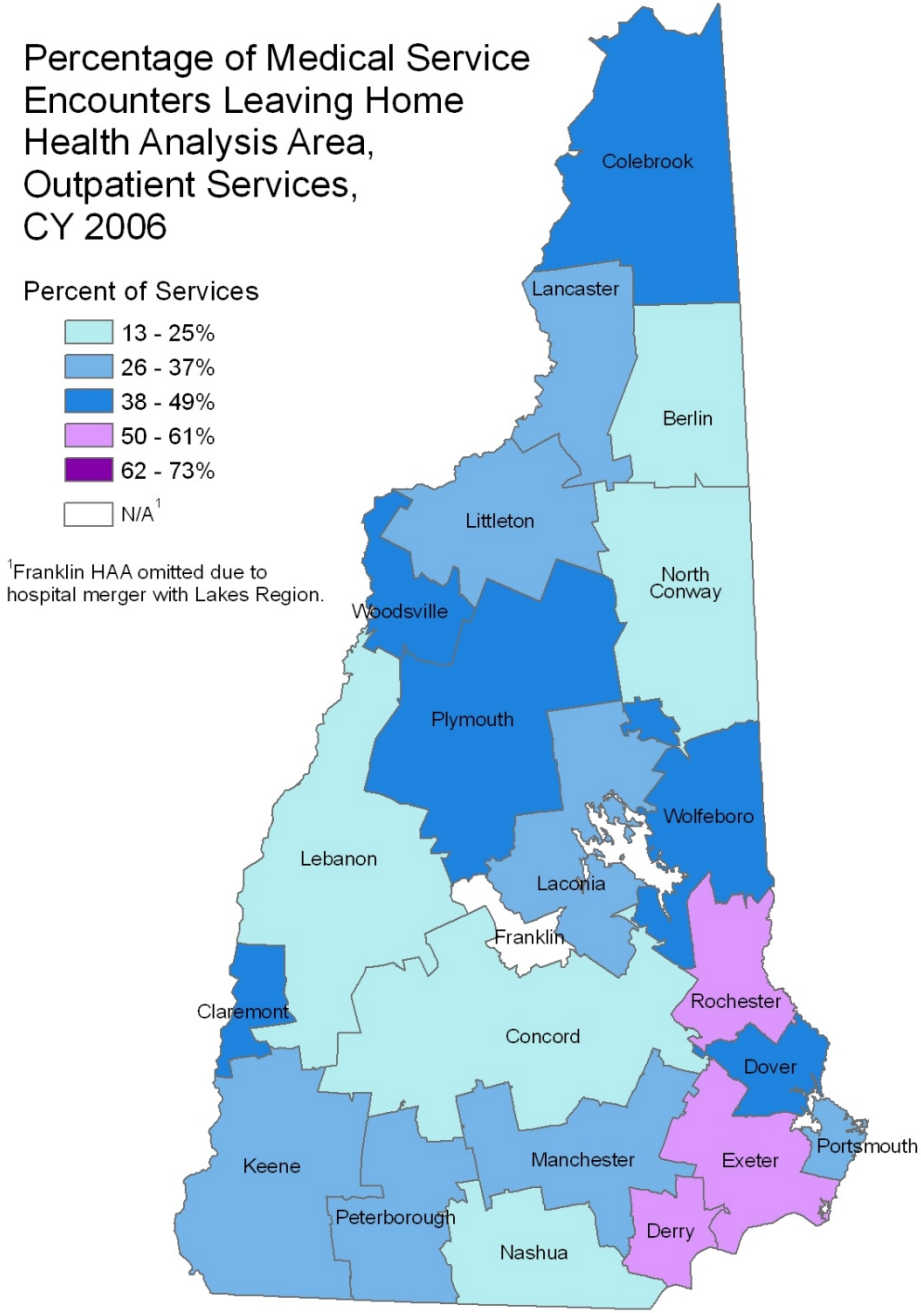
Source: State of Vermont

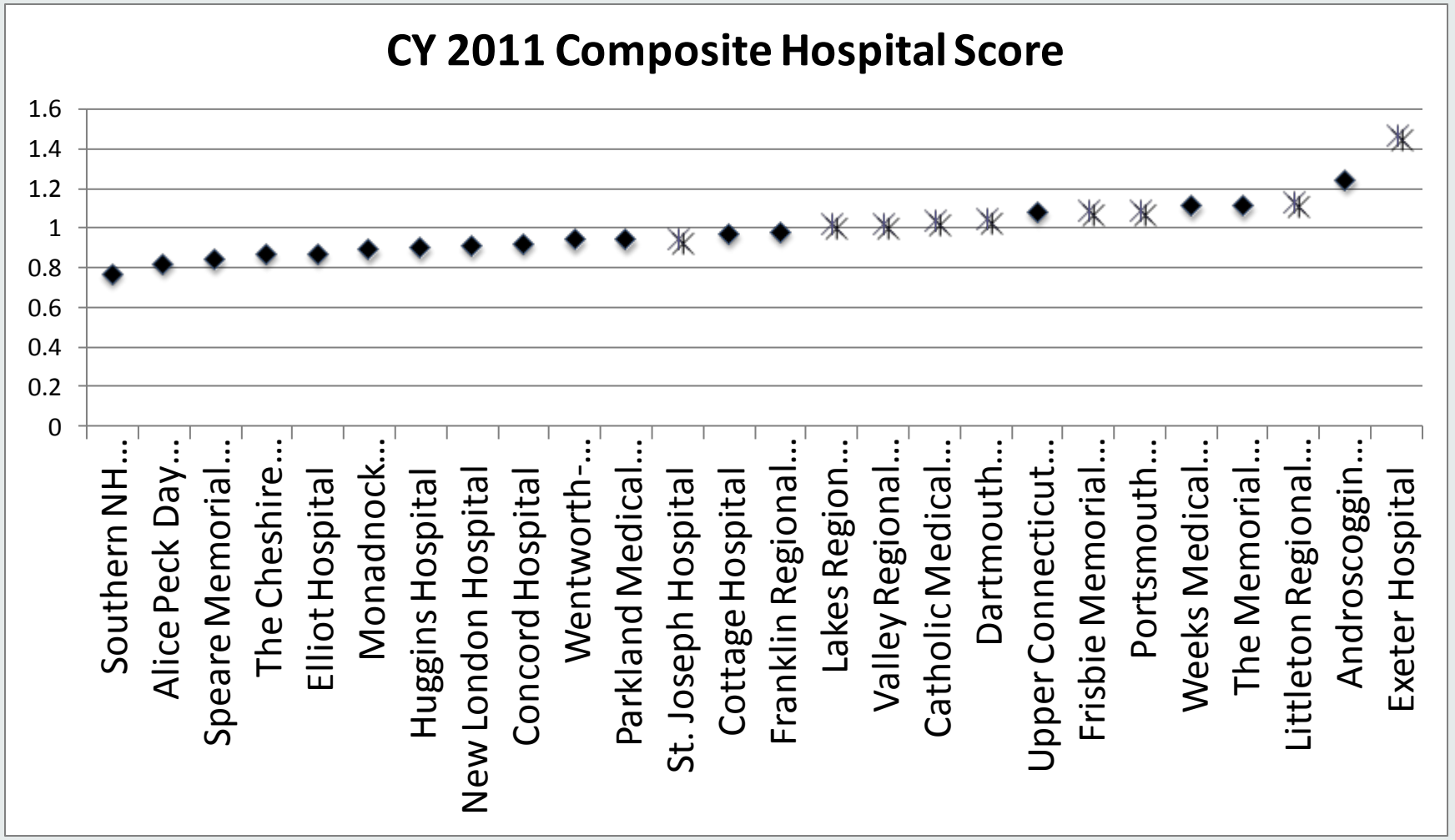
Percentage of Medical Service Encounters Leaving Home Health Analysis Area, Inpatient Services, CY 2006



SOURCE: UNH

Percentage of Medical Service Encounters Leaving Home Health Analysis Area, Outpatient Services, CY 2006





Tier 1=Diamond, Tier 2=Asterisk

Source: NH Insurance Department

NH Carrier Discounts – 2009 Commercial

Aggregate Discounts (Below)

HMO Discounts by Carrier (Right)

1) Anthem – NH = 38.6%
2) Harvard Pilgrim Health Care = 38.5%
3) Connecticut General Life Insurance/Cigna = 32.9%
4) MVP = 30.4%
5) All other insurance = 20.5%

HMO – All Providers Included

Carrier	Observations	Average Discount	Lower CI	Upper CI
All Other Insurance	2,281	34.3%	33.4%	35.2%
CGLI/Cigna	11,079	34.1%	33.8%	34.5%
Anthem - NH	590,534	31.2%	31.2%	31.3%
Harvard Pilgrim HC	240,825	30.2%	30.1%	30.3%
MVP	303	30.1%	27.8%	32.5%

HMO – Hospitals Only

Carrier	Observations	Average Discount	Lower CI	Upper CI
Anthem - NH	106,527	38.6%	38.5%	38.8%
Harvard Pilgrim HC	48,330	36.0%	35.8%	36.1%
CGLI/Cigna	2,064	34.1%	33.5%	34.8%
MVP	69	22.4%	19.5%	25.4%
All Other Insurance	435	21.5%	20.1%	22.8%

HMO – No Hospitals

Carrier	Observations	Average Discount	Lower CI	Upper CI
All Other Insurance	1,846	37.3%	36.4%	38.3%
CGLI/Cigna	9,015	34.1%	33.7%	34.5%
MVP	234	32.4%	29.5%	35.2%
Anthem - NH	484,007	29.6%	29.5%	29.6%
Harvard Pilgrim HC	192,495	28.8%	28.7%	28.9%

Source: NH Insurance Department, January 28, 2010

NH vs. Out –of-State Spending

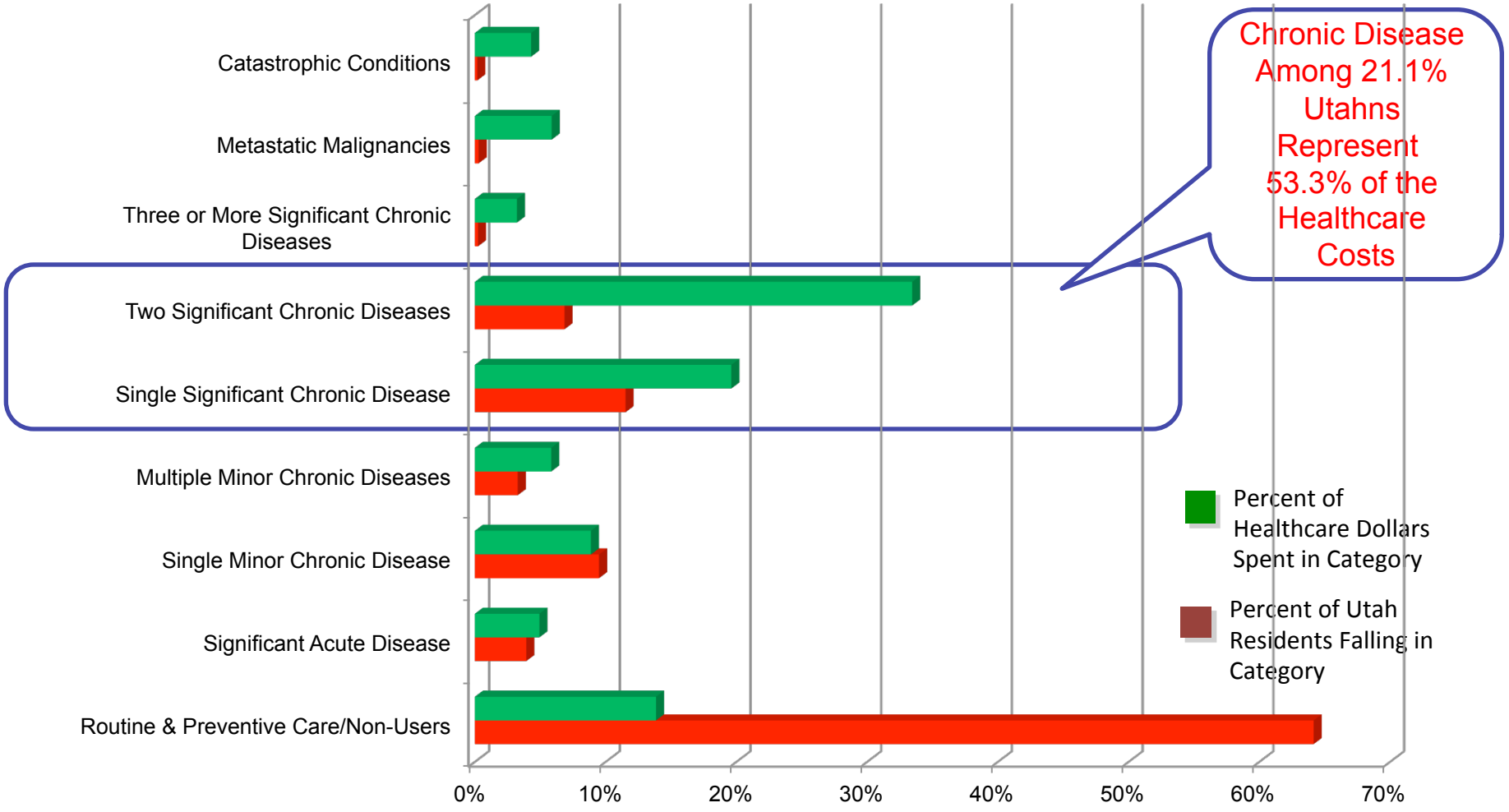
2009 Commercial Membership

Health Insurance Carrier	Location of Care Provided	Average Membership	Patients*§	Patients as a Percent of Membership§	Percent of Allowed Dollars	Payments per Patient	Average Risk Score¥
Anthem - NH	MA	161,556	23,561	15%	10%	$2,472	1.30
	NH		166,260	103%	85%	$3,047	0.91
	Other		38,663	24%	5%	$838	1.21
Totals/Overall Average						$2,614	1.00
HPHC	MA	95,662	19,552	20%	12%	$2,053	1.32
	NH		96,064	100%	84%	$2,949	0.90
	Other		15,096	16%	5%	$1,011	1.24
Totals/Overall Average						$2,591	1.00
CIGNA	MA	45,560	13,667	30%	12%	$1,525	1.23
	NH		46,630	102%	77%	$2,919	0.87
	Other		25,334	56%	11%	$743	1.12
Totals/Overall Average						$2,053	1.00

Source: NH Insurance Department, August 2, 2010

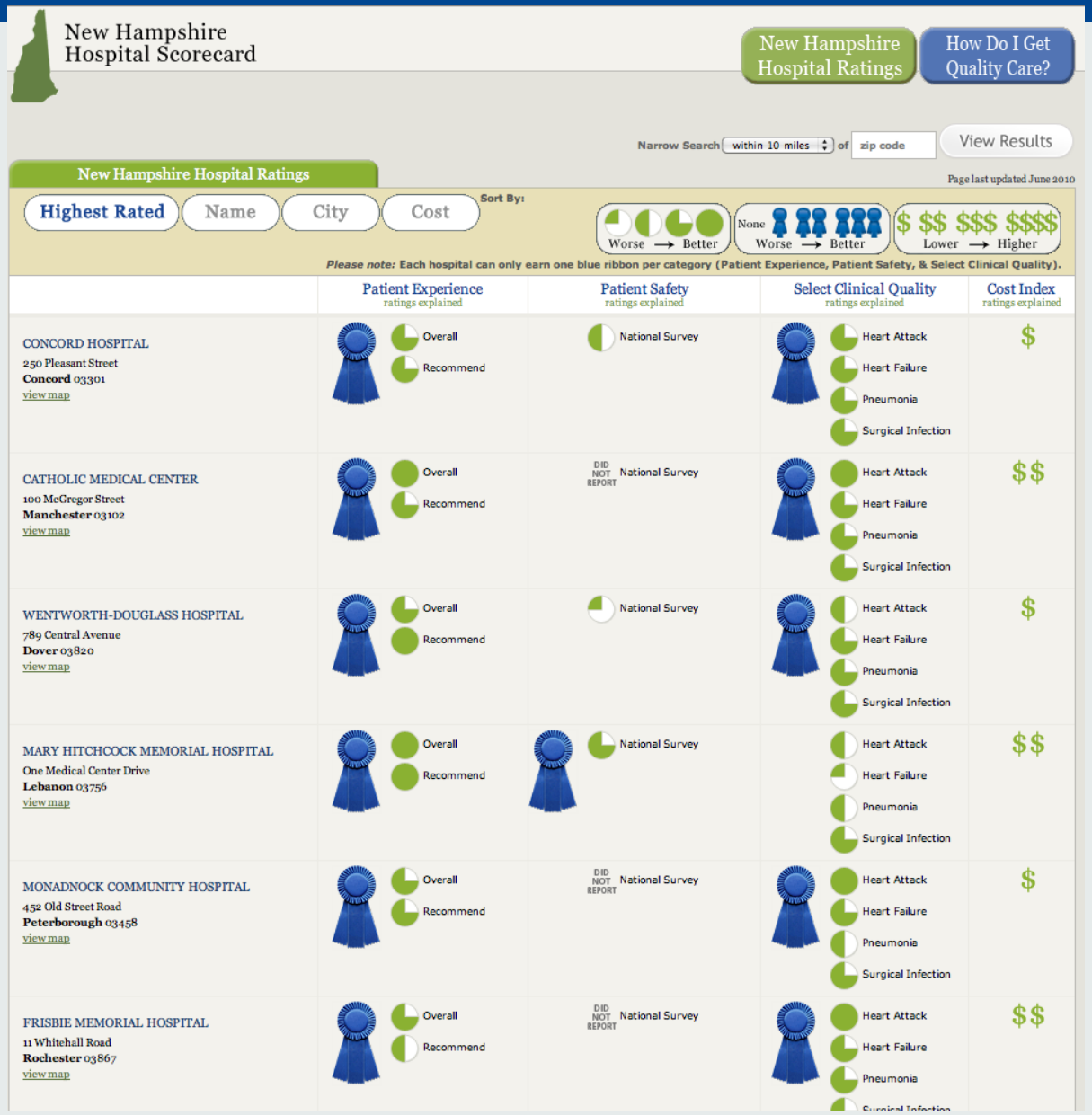
Where are Utah Healthcare Dollars Going?

UTAH DEPARTMENT OF HEALTH



Source: Utah Department of Health, 2011

Purchasers



Source: http://www.nhpgh.org

NHPGH Report List

- Plan Overview by Month
- Medical Volume, Cost by Age & Gender
- Service Location, Cost
- Service Type, Volume, Medical Cost
- Major Diagnostic Categories, Volume, Cost
- Major Diagnostic Categories for Inpatient Stays, Volume, Facility Cost
- Major Diagnostic Categories, Volume, Cost Among High Cost Claimants
- Top Diagnoses by Cost
- Top Diagnoses by Utilization
- Top Diagnoses by Encounters
- Top Providers by Cost - Acute Care Hospital
- Top Providers by Cost - Outpatient-only Facility
- Top Providers by Cost - Other Non-facility
- Top Providers by Cost within region - Acute Care Hospital
- Top Providers by Cost within region - Outpatient-only Facility
- Top Providers by Cost within region - Other Non-facility
- Top Laboratory Procedures by Cost
- Top Radiology Procedures by Cost
- Top Surgical Procedures by Cost
- Preventive Care
- Pharmacy Volume, Cost by Age & Gender
- Drug Type, Volume, Cost
- Top Pharmacy Classes by Cost
- Top Pharmacy Drugs by Cost
- Top Pharmacy Classes by Cost Among High Cost Claimants

Reform

Preliminary Indicators Report, NH Medical Home Pilot
Total Costs by Practice Site vs. Non-Medical Home Sites

Practice Site	Total Cost PMPM Baseline Period January 2008 – June 2009	Total Cost PMPM Pilot Period July 2009 – September 2010
Site #1	$196	$118
Site #2	$218	$158
Site #3	$335	$229
Site #4	$172	$110
Site #5	$261	$207
Site #6	n/a	$225
Site #7	$251	$127
Site #8	$182	$128
Site #9	$203	$120
Total NH MH Sites	**$240**	**$151**
Total NH Non MH Sites	**$240**	**$222**

*Notes: PRELIMINARY DATA: Excludes pharmacy data, is not risk adjusted, is not annualized, and unadjusted for contractual differences.

ETGs for Benign Conditions of the Uterus

Maine Commercial Claims (2006–2007); Full Episodes Outliers Removed
Preference Sensitive Care

BENIGN CONDITIONS OF THE UTERUS	HYSTERECTOMY	OTHER SURGICAL PROCEDURES	WITHOUT SURGERY
ETG-Subclass	646	646	647
Number of Episodes	938	2,183	7,369
% with CT-Scan	11%	15%	9%
% with Ultrasound	57%	67%	45%
% with Hysteroscopy	7%	48%	9%
% with Colposcopy	1%	2%	17%
% with Endometrial biopsy	20%	13%	9%
Average Payment per Episode	$11,074	$7,994	$1,273

The average episode payment for members with abdominal hysterectomy was $11,221, and the average payment for members with vaginal hysterectomy was $10,990. Of members with a hysterectomy, 66% had abdominal and 34% had vaginal hysterectomy. Other surgical procedures included hysteroscopy ablation, laparoscopic removal of lesions, myomectomy, and removal of ovarian cysts.

SOURCE: ONPOINT HEALTH D ATA

Contact Information

patrick.miller@unh.edu
603.536.4265

info@apcdcouncil.org
www.apcdcouncil.org